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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,819

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Ryuji Shiozaki

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7590

10/23/2008

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EXAMINER

CHUO, TONY SHENG HSIANG

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

10/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,819	<b>Applicant(s)</b> SHIOZAKI ET AL.	
	<b>Examiner</b> Tony Chuo	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13, 14, 19, 20, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 7-12, 15-18, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/25/08 has been entered.

### ***Response to Amendment***

2. Claims 7-24 are currently pending. New claims 21-24 have been added. The previously stated 112, 1<sup>st</sup> paragraph rejection of claims 7-10, 15, and 16 is withdrawn. The Declaration under 37 CFR 1.132 filed 9/25/08 is sufficient to overcome the rejection of claims 7 and 9 based upon Noma et al (JP 05-242891). Therefore, the 35 USC 102 rejection of claims 7 and 9 based on Noma et al is withdrawn. The certified English translation of the foreign priority document (JP 2002-088229) does not appear to provide support for claims 7, 9, 11, 15, 17, and 21 because claims 7, 11, and 15 recite the limitation  $0.6 \leq d < 1$  which is broader in scope than the foreign priority document. Therefore, upon further consideration, claims 7-12, 15-18, 21, and 22 are rejected under the following new and previously stated 102 rejections.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 7, 9, 15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujimoto et al (US 2003/0180617). The Fujimoto reference discloses a non-aqueous electrolyte battery having a negative electrode, a non-aqueous electrolyte, and a positive electrode containing a positive active material comprising a compound represented by  $\text{Li}_a\text{Mn}_b\text{Ni}_b\text{Co}_{1-2b}\text{O}_2$  wherein  $0 \leq a \leq 1.1$  and  $0 < b \leq 0.5$  (See paragraph [0010]). Examples of active materials that read on the claimed composite oxides are  $\text{LiMn}_{0.025}\text{Ni}_{0.025}\text{Co}_{0.95}\text{O}_2$ ,  $\text{LiMn}_{0.167}\text{Ni}_{0.167}\text{Co}_{0.67}\text{O}_2$ , and  $\text{LiMn}_{0.0835}\text{Ni}_{0.0835}\text{Co}_{0.833}\text{O}_2$ .

Examiner's note: It is inherent that composite oxide taught by Fujimoto comprises a single-phase structure belong to space group R3-m.

5. Claims 7-12, 15-18, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakanishi et al (US 2002/0061443).

The Nakanishi reference discloses a non-aqueous electrolyte battery having a negative electrode, a non-aqueous electrolyte, and a positive electrode containing a positive active material comprising a mixture of a lithium nickel cobalt manganese composite oxide represented by  $\text{LiMn}_y\text{Ni}_{(1-x-y)}\text{Co}_x\text{O}_2$  wherein  $0.5 < x+y < 1.0$  and  $0.1 < y < 0.6$

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and a lithium manganate represented by the formula  $\text{Li}_{(1+z)}\text{Mn}_2\text{O}_4$  wherein  $0 \leq z \leq 0.2$  (See paragraph [0020]). An example of an active material that reads on the claimed composite oxide is  $\text{LiMn}_{0.11}\text{Ni}_{0.09}\text{Co}_{0.8}\text{O}_2$  wherein  $a=1$ ,  $b=0.11$ ,  $c=0.09$ ,  $d=0.8$ , and  $e=2$ . It also discloses a mixing ratio of lithium nickel cobalt manganese composite oxide ( $\text{LiMn}_y\text{Ni}_{(1-x-y)}\text{Co}_x\text{O}_2$ ) to lithium manganate ( $\text{Li}_{(1+z)}\text{Mn}_2\text{O}_4$ ) that is 90:10 (See Table 2, Invention cell 18). Examiner's note: It is inherent that the lithium nickel cobalt manganese composite oxide taught by Nakanishi et al comprises a single-phase structure belonging to space group R3-m.

### ***Response to Arguments***

6. Applicant's arguments, see Remarks, pages 9-12, filed 9/25/08, with respect to the rejection(s) of claim(s) 8, 10-14, 16, and 18-24 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakanishi et al.

### ***Allowable Subject Matter***

7. Claims 13, 14, 19, 20, 23, and 24 are allowed.

The Nakanishi reference discloses a non-aqueous electrolyte battery having a negative electrode, a non-aqueous electrolyte, and a positive electrode containing a positive active material comprising a mixture of a lithium nickel cobalt manganese composite oxide represented by  $\text{LiMn}_y\text{Ni}_{(1-x-y)}\text{Co}_x\text{O}_2$  wherein  $0.5 < x+y < 1.0$  and  $0.1 < y < 0.6$

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and a lithium manganate represented by the formula  $\text{Li}_{(1+z)}\text{Mn}_2\text{O}_4$  wherein  $0 \leq z \leq 0.2$  (See paragraph [0020]). However, Nakanishi et al does not expressly teach a composite oxide that represented by the general formula:  $\text{Li}_a\text{Mn}_b\text{Ni}_c\text{Co}_d\text{O}_e$  wherein  $0.9 \leq d < 1$ .

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Chuo whose telephone number is (571)272-0717. The examiner can normally be reached on M-F, 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC

/Jonathan Crepeau/  
Primary Examiner, Art Unit 1795

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